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THE JOURNAL OF SCHOOL HEALTH

Devoted to the interests and advancement of school health service and instruction. Your participation by membership is solicited.

Vol. XXVIII FEBRUARY, 1958 No. 2

THE CARDIOLOGIST LOOKS AT THE SCHOOL CHILD

CARL J. MARIENFELD, M.D.*

It may seem as strange to you as it occasionally does to me to be considering the "cardiac child" in a meeting whose direction and purpose is concentrated upon the "total child", his development and his education. Our accent in the educational process is to keep the child from feeling "different", a feeling which appears to be especially intolerable to the pre-adolescent and adolescent child. Yet here we will concentrate for the next few hours on the very factors which have caused the "different" classification.

The only excuse which I can give for this focus is that, in order to eliminate heart disease as a factor affecting the lives and activities of the children involved, we must acquire as much specific information as is possible and disseminate this information as widely as possible to those who live with, who supervise, or who educate the child so affected.

The fears and apprehensions which have for so long interfered with the reasonable management of this group of diseases have their roots in the general "fear of the unknown", and date from antiquity when the heart was considered the source of everything, including the emotions. The identification of the problem of heart disease in children with that in the adult suffering an attack of acute coronary heart disease, brought about the similarity of treatment that was marked by the use of unnecessarily long-term bed rest and varying degrees of permanent lifetime restrictions of physical activities. These have now gradually given way to individualization of treatment to suit the age and the stage of the child and his disease.

To you who have been involved in the teaching of children, it is nothing new to state that the child is a separate entity and not "a little man or a little woman." But it has taken somewhat longer to come to the realization that the child with heart disease is not a "little coronary patient." Fortunately the onus has been removed from even this latter diagnosis. But many children with a diagnosis

*Chief, Program Services Section, Heart Disease Control Program, Division of Special Health Services, Bureau of State Services, Public Health Service, U. S. Department of Health, Education, and Welfare, Washington, D. C. Presented at the meeting of the American School Health Association in Cleveland, Ohio, November 14, 1957.

of heart murmur or heart disease have no reason to be concerned either then or in the future. Such children should not be lumped together into a handicapped group with those cases with a true or severe cardiac involvement. The differences between types of heart disease in the child are as marked as the differences between the children themselves. We have come as physicians then, as have you in education, to employ the only common denominator, the child himself.

As the cardiologist looks at the school child today, he must do just that: look first at the child and then at his heart. In the majority of cases he is able to eliminate the need for special concern by the patient, or by his parents or teachers, through accepting the responsibility for adequate long-term medical supervision and by notifying his co-workers in the care of the child when and if a new look has shown changes or progression. If severe heart damage or an irreparable condition is found, he must seek the help of these same co-workers so that inadequacies for normal development, emotional adjustment and vocational possibilities can be compensated for as early and as completely as possible. If this is not done, the result is the same as waiting too long in performing cardiac surgery and secondary changes have made curative surgery impossible.

Heart disease in children falls into three general categories. First there is the infectious group, of which rheumatic fever is the largest and most important. Secondly, there are the children with congenital heart disease—a much smaller number, but of increasing importance in recent years, since a large number are now curable by surgery. Finally, there is a still unfortunately large group of so-called "potential" or "possible" cases, who actually have no heart disease but whose diagnosis is based upon either a vague history resembling rheumatic fever or upon the incidental presence of an innocuous or meaningless murmur. The anxiety thus aroused in the child and the parents may be more crippling and more difficult to dispel than the effect of true or pathologic heart involvement.

Rheumatic fever is a disease in which inflammation of many tissues of the body occurs simultaneously, and the symptoms are due to the localization of this inflammation: in the joints to cause rheumatism; in the skin giving rise to an intermittent rash; in the subcutaneous tissue causing nodules under the skin; in the brain causing chorea or St. Vitus dance; and in the heart, leading to swelling and inefficiency of the heart muscles and inflammation and poor closure of the heart valves. This occurs during the acute attack during which the child is usually obviously ill and also

usually has fever. Unfortunately, however, occasionally these symptoms are very mild and may be missed unless the heart is examined very carefully.

Certain laboratory tests are helpful, but never absolutely diagnostic. In the usual mild case and with adequate treatment, complete disappearance of the inflammation occurs during the bed rest and treatment period. This child may never give evidence of heart disease and should return to normal activities after a reasonable period of convalescence. If valve damage has been slight though permanent, this child also may return to normal activities except for the elimination of certain competitive sports. If damage is severe and the heart does not improve after the attack, or repeated attacks occur, then the question of special school for handicapped children arises, but these cases are now fortunately becoming much less frequent.

Since apparently most of these children escape with little or no heart damage in the first attack, why is it then so important to make the diagnosis during this attack? The implication carried in the term, "first attack", is that repeated attacks will occur with progressively more and more heart damage. Occur they do, or at least they did, for there should be practically no second or third attacks in the present day. It has been ascertained beyond reasonable question that the streptococcus bacterium causes both the sore throat or scarlet fever which precedes the rheumatic attack and the attack itself as a secondary complication one to two weeks later. Thus, since we now have at hand the antibiotics which destroy the streptococcus, we similarly can prevent the secondary occurrence of rheumatic fever. Daily administration of the antibiotic is almost 100 per cent effective in this prevention. Without this prophylactic medication, second attacks occurred in from 50 to 70 per cent of children who had had one attack. The first attack always gives evidence that the child is in the so-called "rheumatic state". This term has come to mean that the same chain of events making up the rheumatic attack would occur with each new exposure to the streptococcus. The cardiologist is here interested not so much in the heart, or the amount of physical activity engaged in, unless severe damage has occurred, but in the practice of preventive medicine, the prevention of a new streptococcic infection. His follow-up care is directed at making certain that no day passes without the administration of antibiotic prophylaxis.

The second group—children with congenital heart disease—have an abnormality occurring at birth in the heart or blood vessels

which allows the passage of blood between the venous and arterial circulations in one or the other direction. There may also be interference in some fashion with the normal flow of blood through these two systems.

In past years, prior to the advent of surgical correction, these children sought and maintained their own level of physical activity long before they entered school. There was no need to prescribe restrictions since they naturally restricted themselves; but many were so markedly short of breath or blue on the slightest activity that they were unable to attend school or could attend only a special school equipped with elevators or ramps.

At the present time, however, there is only a small group which remains thus far uncorrectable surgically, and, if the progress of the last few years is any indication of the future, the child that cannot be helped by surgery should soon be rare indeed. The cardiologist's responsibility here has also become one of preventive medicine. There is an optimum time for surgery in these children, and the determination of this time is dependent upon the earliest possible diagnosis, since in many cases adult or late diagnosis precludes successful surgery, secondary irreparable complications of an infectious or vascular nature having taken place. When normal circulation has been restored in these children by surgical means, they usually are able to resume normal school activities under careful medical supervision.

The third group perhaps should not be included here, since there is no actual heart disease. The conviction, however, or even the suspicion that heart disease is present because of an insignificant murmur, or because night cramps in the legs have occurred, or because of a single non-specific suggestive laboratory report, places this child just as certainly in the heart disease category as the two previous groups. The effect upon the child and the parents is equally as drastic and as limiting. The cardiologist's responsibility here lies in convincing the parents particularly that no heart disease is present. This is never, unfortunately, accomplished by a few reassuring words, but takes a complete diagnostic work-up and many repeated examinations and interviews to convince the patient or the parents that the physician is not just hiding the true state of affairs. These then are the three general types of child-patient which the cardiologist sees.

The cardiologist in pediatrics has become acutely aware of the problem of vocational rehabilitation, which has up to recent years been considered as an adult problem and has had only adult facili-

ties. The adolescent child who learns that he has relatively severe heart damage, which will not improve, immediately projects himself into the future and wants a very clear answer as to what he will or will not be able to do as an adult. Our answers to these questions in the past have been relatively lame, and we hoped somehow that a special school would prepare him in some special way to compete to better advantage after he left school. Recent work, however, has convinced us that elevators and ramps and rest hours are not enough to accomplish this but that training must begin early and be based on definite medical indications. When this is not done, the child goes through some years of discouragement and resentment before he or she is picked up by the adult rehabilitation service. By this time the emotional barrier must be worked through before effective help can be brought to bear by these agencies. On the other hand, early and effective vocational guidance and training, if it is begun in the school, can be the start of a continuing program which is picked up and carried forward upon graduation, to give the child the opportunity of realizing his maximal potential as an active participant in the adult world.

We have tried, then, to explain the need for special consideration of the child with cardiac disease; to illustrate what the cardiologist sees when he looks for heart disease in children and finally, to urge what Dr. Whitehouse has so aptly called "habilitation" in the handicapped cardiac child. In the final analysis, the cardiologist who looks at the cardiac school child sees the same child that you see in your daily work, and he hopes that his necessarily highly developed organic astigmatism will never blind him to that very important fact.

* * * * *

SAFETY NOTE — CHILDREN AND ROCKETS

Student interest in launching rockets has swept the country. No one would want to discourage students in experimenting in this field. However, school officials, teachers, and community leaders should point out the dangers of experimenting with chemicals or gases unless under competent supervision.

—*News Letter, Mich. School Health Assoc., Jan,* 1958

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CLEVELAND SCHOOL HEALTH SERVICES

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The beginning of school life is the first continuous mass contact with other children of equal age. School may also be the place and occasion of the first conscious contact with a nurse, dentist or doctor. Many of our children due to parental apathy, shifty economics, or drift of population may have had no doctor, perhaps not since infancy, nor have they seen a doctor with any degree of regularity. We, of the medical and dental profession who experience these first contacts at school, should be very prudent and circumspect about the fertile, deep impressions made upon our school children. Early imaginative and intuitive estimates of our professions, for good or bad, may last a lifetime.

The school doctors, as other good doctors, must deal with the whole child, we must not be divisive, we must consider the physical, mental, emotional aspects and their impingements on one another. Here, we must become particular and consider the Cardiac Child in the school milieu. A cardiac child is a designation we all should be chary and wary to make. Classification and pet labels inflicted on children are traumatic. Excepting, perhaps, for his awareness of the alimentary tract and the urogenital system, the growing child is most conscious of the circulatory system and most aware of the heart. He senses the thump and pulsation, he contuses and bleeds, he links the heart with the tragedies of love and romance—life and death. To be classified as a cardiac, to be known as one with heart trouble, may spell calamity emotionally and psychologically, to the youth and the immature.

In our school system dysfunction of the heart may be made manifest by the taking of a medical history from the pupil, or at a parent consultation. Great stress is put upon the parent consultation and we obtain these whenever possible. Also, it is surprising at times what a clear, straightforward, uncluttered medical history a school child can give. The adult tends to wander off in details, irrelevancies and obfuscates the pertinent medical issue. Dysfunctions of the heart are also discovered by the so-called Routine and Special Examinations.

1. Presented before the American School Health Association, American Heart Association, Thursday, November 14, 1957.

Routine examinations in the Cleveland Public School System are, if possible, given at these levels, Kindergarten or First Grade; Third; Sixth; Eighth and Tenth Grades. In truth, because of the large immunization programs, 10,000 Diphtheria-Tetanus doses; 12,000 Smallpox Vaccinations annually, plus Salk Vaccine inoculations since 1954 — 145,000 doses in 1957 — we have been unable to do many routine examinations beyond the primary grades. We believe the Routine examination important as a screening device for Cardiac and all other defects, because as already stated, in a Metropolitan Cosmopolitan Center, a large number of children have no family doctor—see no doctor with any semblance of regularity nor are they as yet affiliated with any agency or clinic. The great number of abnormal heart conditions are revealed in this routine manner of screening.

A special examination is made on all new entries and on all pupils with problems screened to Health Services by the nurse, principal, teachers, attendance department, agencies, etc. More time is spent on these special examinations; a more comprehensive history is obtained either by a parent consultation at school or a complete history may be obtained by the nurse in the home. Cardiac abnormalities are given special attention and may be re-examined at stated intervals, but too frequent examinations of the heart should not be countenanced as these procedures may be a contributory factor in cardiac neurosis. To avoid a possible psychiatric reference, an early diagnosis and disposition of the case should be made. The special examination also gives the nurse and doctor an excellent opportunity to emphasize and reiterate the principles and importance of general good health in the cardiac child. It presents an occasion for guidance in the acceptance of a necessary modified school curriculum or limitation of activity.

It should be stated here that all examinations of school children should be done with privacy and with adherence to the principle of privileged communication. A health record card is kept not only for the cardiac child but for all children enrolled in the school system. These records are kept by the school nurse and are available to all responsible school personnel. These health files are kept until the age of twenty-one.

Neither the Routine nor Special Examinations of Cardiac children are complete by diagnostic standards. We inspect, we palpate, we auscultate, but we have no laboratory facilities. Our school physicians, on the whole, are general practitioners, internists or pediatricians, but they are not cardiologists. The history and the

physical examinations are still fundamental for even the specialists who have laboratories at hand. We believe that school doctors do a unique service in screening the abnormal heart conditions in school children. On all occasions, when possible, we inform parents or guardians that our examinations are not complete and that a tentative diagnosis made or proffered, should be verified, confirmed or repudiated by the family doctor, or by a qualified clinic in indigent cases. In the main, all cardiac deviations are referred to the family doctor and through him to a specialist of his choice.

In the Specialty group, the Cleveland Public Schools have one Otologist, two Oculists, a Thoracic Specialist, and a Psychiatrist. We have no Cardiologist. The void is amply filled by the Children's Diagnostic Clinic. To this Clinic we are privileged to send children, directly or indirectly, through the cooperation and consent of the family doctor. Incidentally, private physicians who have diagnostic problems, may also avail themselves of this clinic. The Clinic was started on January 3, 1950 with the cooperation of the City Division of Health, the Cleveland Board of Education and the Cleveland Area Heart Society, with the approval of the Academy of Medicine. Charles A. White, M.D., an internist and a cardiologist, has been in charge since its inception. Without the Children's Diagnostic Clinic and the invaluable, comprehensive, conclusive and advisory reports of Dr. White, our disposition of the Cardiac Child would be mortally inadequate. Now the school doctor, through the family doctor, has the confidence and consolation which expert and scientific appraisal gives. We are also beholden to all specialists and physicians for their time-consuming written reports and communications.

Dr. White in the review of 1000 cases diagnosed at the Clinic gives these results:

179 — Rheumatic Heart Disease—active and inactive
206 — Congenital Deformities
576 — Functional
49 — Noncardiac—psychoneurotic, etc.

Dr. White states—"We are particularly anxious to see those children who are suspected of having heart disease. One of our greatest services is in cases where the family has been told that the child has heart disease where actually no real disease exists. A large percentage of the children we have seen are in this group and we have been able to help return them to the normal life they should enjoy."

We wish to reiterate that referrals to the Children's Diagnostic Clinic by the school physician are made with the consent of the parents and with consultation and approval of the family physician.

The complete report is sent to the family physician, the school physician, or both. The follow-up and disposition of the case is left to the discretion of the family physician or clinic.

In the State of Ohio, Physical Education is recommended for all unless they are excused for medical or sufficient reason. The problem of whether a cardiac child takes gym or does not take gym is a dilemma. Fortunately, in our system we have a "modified gym" program in which, on the recommendation of the family doctor, the child may participate in some form of gym activity. This regime gives all a sense of group participation and may relieve frustration. Contrary-wise, some physicians, parents and pupils conspire to circumvent all gym and physical education.

Competitive sport is another area where dysfunction of the heart may be a problem. Youth is exuberant, dynamic and thrives on bodily contact, and it takes perennial, persistent education to convince some youth that competitive sport is not their game.

Can this child climb steps? Is it possible to so schedule his classes to be on one floor? Should he have an elevator permit? Can this girl cheer lead? These are some of the cardiac nuances which must be adjudged by the school physician.

The Cleveland Public School System also maintains a special school for Crippled Children (Sunbeam) to which severely handicapped cardiacs may be sent. Here, of a total enrollment of two hundred and fifty pupils, about forty are cardiacs. These pupils are provided bus transportation, are specially taught and follow a routine of exercise and medication prescribed by the private specialist or physician in charge of each child. Should a child be confined to bed at home or at a hospital, he may be provided a tutor. At present, of forty tutored cases, five are cardiac. These special placements are requested by the parents through private physicians and supervised by the departments of Special Schools and activities and Health Services.

The school physician and nurse work closely with the Attendance Department and the Work Permit Department, where 10,000 physical examinations are made annually, in compliance with the State Child Labor Laws, for part or full-time work. These examinations are made in the 14 to 18 year age group. Can this pupil, with this defect, cardiac or otherwise, do this type of work? Such questions must be answered by the school physician in consultation with the parent, the private physician, the clinic and various companies and industries.

Rheumatic Fever is the major medical problem in the school child. The school physician and nurse, in fact, the principal and teacher, help greatly in its prevention. Older teachers especially become expert in noting any deviation from normal health in their classes. They exclude children or refer them to the nurse who contacts the parents, and advises early examination and treatment by the family doctor. Thus an initial sore throat may be detected. Treatment is instituted and cardiac and other sequelae aborted. The Health Services of the schools assume a paramount function to see that suspected and actual cases of Rheumatic Fever obtain and maintain proper medication and revisit their physician with appointed regularity.

The Health Services of our schools are grateful to the parent, the family doctor, the specialist and the teacher personnel for their daily help in screening of all health defects. We are especially thankful for their aggregate assistance in the detection, evaluation, education and prudent allocation of those pupils handicapped by cardiac defects.

* * * * *

REVIEW

Meredith's Science of Health—Warren H. Southworth, Dr. P.H., Prof. of Health Education, The University of Wisconsin and Arthur F. Davis, D.P.H., Prof. of Physical Education, The Penn State University; 3rd Edition—Published by McGraw Hill Book Co., $5.00—1957.

An introductory survey of the National Health Situation and the major forces affecting personal and community health, a study of basic problems involved in the maintenance of daily health, its close relation to an understanding of the elements of body structure and function and an evaluation of health hazards posed by group living are major topics for discussion. The importance of promoting health, the development of a healthy personality, and some of the factors basic to successful living as a member of the family and other social orders with a look toward the welfare of coming generations are valuable and thought-provoking sections of a book which serves its purpose well in introducing the college student to the important aspects of personal and community living. —*M.A.H.*

THE EDUCATOR'S VIEW OF THE CARDIAC CHILD

MORRIS HAMBURG, Ed.D.[1]

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Hempstead, L. I., N. Y.

Our two previous speakers—Dr. Marienfeld and Dr. Cozzens—have given us a remarkably clear picture of the cardiac child and his problems, as seen through the eyes of physicians. It was to be expected that these two medical men would clarify for us — *who* is the cardiac child? — what is the *medical condition* that justifies giving him this label? And I think they have succeeded admirably in giving us this basic information along with illustrative material that added a great deal to its meaning. But more than this their remarks suggested that the problems of the cardiac child are not *all* medical in nature — that there are, in fact, other facets which include the child's education, his parents' education, psychological guidance, vocational planning and many others. These implications in themselves, are evidence of the inter-professional understandings of children that have been developing during the past decade, and I think we can feel much satisfaction in this trend, even though all of us still have a long way to go.

Now we have come to a conclusion of the cardiac child as the educator sees him. I would say that in addition to the difference in professional training and experience, probably the biggest difference between the educator's and the physician's view of the cardiac child is that the educator usually sees children en masse—with the cardiac as simply one of a group, which aside from age, is probably quite heterogeneous in character. The physician, happily, can see children one at a time. I'm sure that both Dr. Marienfeld and Dr. Cozzens are harassed in their attempts to schedule appointments for their patients and feel that there simply are not enough hours in the day. But, oh, how teachers would love to have the opportunity to work with individual children more often!

Before we go any further, I think we should clarify just whom we mean when we speak of the "educator". There can be no question that the classroom teacher is a most important—probably *the* most important—person in the school setting. And this brings to my mind a little story which disputes even this point. It has been said that school would keep if the superintendent and principal are

1. Presented at the annual meeting American School Health Association, Cleveland, Ohio, November 14, 1957.

away. As a matter of fact, school will keep even without teachers. But the Lord help us if the custodians aren't there!

Although the classroom teacher is undoubtedly a key person on the education staff, she is not the only one. And right at the very beginning, I want to make it clear that I am considering the whole education team in my remarks here today—even the school administrator, though I often hear him referred to as a "hanger-on". In his role as an interpreter of policy, an establisher of school-room "climate" and a communications catalyst, what he does and says will affect every child in the school system.

And there are many others on the school staff: personnel concerned with guidance and special services; such as psychologists, school nurses, counselors, home teachers and others. Unfortunately, there are all too few of these professional people. Very few schools, relatively speaking, can boast of having the list I just mentioned. But I have kept all of them in mind in preparing these remarks about how the educator views the cardiac child.

Let me admit to a bit of frustration in singling out the cardiac child for discussion. Educators find this very hard because their concern is for *all* children — and the educational goals for these children are the same as for those who carry the label "cardiac". The teacher's job is to help children in their charge, with or without physical handicaps, achieve maximum growth and development, to help them lead as full a life as possible as a child, and to help them so that they may attain civic and economic competency as adults. In their work with children, there is one fact of which teachers are probably more keenly aware than any other: that *every* child is different from others. Children—the same as adults—are complex organisms that literally defy categorization.

Nor can children with special health problems—such as the cardiac—be stereotyped. No description, regardless of its generality, could fit precisely. The child's attitudes toward himself, his physical condition, his friends and family will vary. So will his appearance, his personality, his abilities and his limitations. It is true that he is just like all other children in the respect that he is *different*.

Educators wholeheartedly endorse the philosophy that all children who can benefit from it have a right to education. The same educational opportunity should be extended to all. Where there are physical limitations, as might be true with cardiac children, the means and the setting for education may vary. School in the hospital or at home might be required for a period. Physical lim-

itations might be severe enough to make placement in a special class or school desirable. But, as has been pointed out earlier, in most cases the cardiac child is eventually able to return to the *regular classroom*. For this reason, most of my remarks are directed to the cardiac child in this school situation.

Back to our topic—this time stated as a question: "What is the teacher's view of the cardiac child?" First, I would like to state very emphatically that her view is not good enough. Why?

One major reason is very simple—and very well known to all of us. The teacher simply cannot see him or know him well enough. There are too many other children in the classroom. As they pour in on the opening day of school until approximately 200 school days later, the one thing that all school personnel want to do is the best possible job for and with each individual child. The classroom teacher with forty children in her charge has twice as many problems confronting her as the teacher who has twenty. In some areas, that same teacher is in a double session and must share her room for the next shift. Therefore, it seems to me that one of the most constructive things that can and should be done to help the cardiac (and indeed, all others) is to make it possible for him to be one of twenty rather than one of forty. Otherwise, we must face the fact that time is not available for the school to take care of the individual needs of all children. The over-population and understaffing of many schools is not offered here as an alibi for all inadequacies in the education program. Teachers have learned long ago to make the best of a situation. I am sure that everyone would agree that schools can and do do a better job where there are reasonable numbers with whom to work.

What else contributes to the fact that the teacher's view of the cardiac child is not good enough? Well, just this — in too many cases she lacks access to adequate, up-to-date medical information with specific and realistic recommendations for the child's school program. School personnel should be given a practical understanding of the child's medical condition. We have had evidence here today that physicians are growing out of the era when they thought their specialized medical knowledge should be locked up in their archives because they feared no one else could be entrusted with it or would handle it ethically. But, in practice, there is still a great gap between the information that the doctor has — and what is given to the school people. The problem, as I think most of us know, is that it takes a great deal of care, skill and finesse to inter-

pret scientific or professional medical data—because these data do not have the same meanings to the teacher as to the doctor. However, unless this information is explained to the teacher in a way that she can understand, the child's school program cannot be intelligently planned.

Let's take an example. During the school health appraisal, a fifth grade boy is found to have a "heart murmur". This finding is reported to the boy's parents with the recommendation that he be seen by his family physician for further diagnosis. Several weeks go by. The school hears nothing more. Finally, the school nurse calls the mother, who gives her permission for contacting the family physician directly. A telephone call to the doctor gives her the information that the boy does have a "heart murmur" (whatever that may mean) and that the boy should not participate in sports that are "too competitive". This is all the information she is able to get and she passes it on to the classroom teacher. It is now up to the teacher to exercise discretion as to what activities are not considered "too competitive". This is not an unusual situation and it leaves the school with questions: should the boy be classified as a "cardiac"? May he play basketball, touch football, volleyball, run relays? Should he be excluded from gym entirely?

And suppose that the parents had not followed-up the school's recommendation at all and refused to take the boy to the family physician for further diagnosis. The school then, knows only that during the health appraisal a "heart murmur" was detected. What should the classroom teacher do? This is still another—and not a rare—problem which the school faces.

As I suggested earlier, we have a long way to go in improving communications, and I believe the school health service staff, particularly the school nurse, has a most important role to play in this connection.

Although I have illustrated a serious block in communications between professions — in the case just mentioned, medicine and education — there are also tragic inadequacies within professions — and even within institutions! Two examples will suffice: the family physician and the school physician; the school health services staff and the teaching staff within a school. It is true that sometimes children's school health records are not seen by teachers or even discussed with them. How, then, could the information they contain, be of any use in planning for the child?

We also need to develop closer liaison between the home and the school. Those important channels of communication should be

well established—and kept open—so that the child may benefit. It is only through mutual planning, understanding and acceptance that a good program for the cardiac child can be planned and carried out. And I would like to say in passing — and much too casually in relation to its importance — that the cardiac child himself should also share in the understanding of his own condition and the limitations it may place on him.

All of this takes time—a most precious and rare commodity in these busy days. But we must find it if we are to do a good job. And I would like to suggest that we *will* find it if we establish priorities—ask ourselves, what things deserve to consume the little available time at our disposal?

The second major point I would like to make about the cardiac child is one that was hinted earlier: only the heart of the problem is medical. Many related factors must be considered by school personnel in working with him.

Let's start with school placement, since this is usually an early concern. Is the cardiac child able to go to school? If so, should he be in a class for children with special health problems? If he is able to be in a regular class, does he require adaptations of the regular program? These decisions require thoughtful evaluation starting with the medical diagnosis and prognosis, but not ending there. Whatever the reason for his classification as "cardiac"—be it rheumatic fever, congenital defects or some other abnormal physical finding—more than medical evaluation is required. The school physician, the school nurse, together with teachers and other appropriate school personnel all have an important part to play. The contributions of a psychologist and a social worker, if these are available, are obvious. And let's not forget the child's family—their attitudes are important too. What we are implying here is that a cardiac condition frequently creates social and emotional problems for the child and his family which might not otherwise arise. And it is at least as important to work toward solution of these problems as to give medical treatment.

One of the difficulties that often manifests itself in the behavior of cardiac children is his poor social adjustment with his peers. It is well recognized that competitive games and sports mean a great deal to boys and girls. Success in games and sports is often an important criterion for popularity with others. A cardiac child, who cannot compete in such physical activities, is at a serious disadvantage. Other children can understand why a child with an

observable orthopedic handicap cannot participate, but they can't always appreciate why a child with no visible defect cannot play. And they are apt to call him a "sissy."

It is the teacher's job to help the cardiac child get along well with other children in the class, and to overcome, if possible, related social and psychological aspects of the cardiac condition. This requires some ingenuity, because I am certain that there is no foolproof method. I would say, however, that whatever the teacher does, it seems to me that one of the worst things she can do is to explain a child's deficiency to the rest of the class and expect them to understand and behave in a desirable way. She must find other ways of developing these understandings without making a personal issue of it.

Some of the adjustment problems a cardiac child may face can be found right at home. He may have "problem parents". For one thing, he may be made the victim of "smother love", which might be very pleasant to the child, but which is certainly not healthy for him from an emotional standpoint. Teachers can readily become aware of such problem parents by their overconcern about the child "overdoing". They may worry not only about physical activities—but also about such things as "too much homework that keeps my child from getting enough rest."

There are other kinds of problem parents. A father, who might have hoped his son would fulfill his own thwarted ambitions to become an All-American halfback, may become bitter in his disappointment that there is no possibility for this. Likewise, a mother, who feels that her child may always be dependent upon her, may resent the role into which she feels she has been forced.

Most teachers, I believe, appreciate the fact that secondary handicaps which may emanate from a feeling of rejection can prove to be more harmful and crippling than the factor of the physical disability itself. Where teachers have an insight into such problems they can be of enormous help to both the child and his parents. To the child she can extend a feeling of her acceptance of him on the same basis as other children. She can guide him toward self-understanding. She can work toward allaying any anxieties he may have developed, and can help him avoid developing compensatory characteristics that may create problems for himself and others. The wise teacher will not try to operate alone but will use all the help she can get from the rest of the school staff. A psychologist and social worker could be especially helpful. especially helpful.

Working with parents can be most constructive in terms of helping the cardiac child. Teachers should—and I think do—realize that it is the parents who carry the major responsibility for their child through his life experience. Parents need, and I think most of them welcome, the kind of help that school personnel can give them. I think all of us would agree that this help can best be given by discussing the child's problems with parents in as objective and constructive a way as possible, avoiding any "blaming" or "scolding." And I am going so far as to say that ideally, teacher-parent conferences should be held periodically, whether or not there is any "emergency" situation. Schools should provide for this by proper scheduling. Both parents and school personnel have much to learn from each other. Each needs encouragement and guidance from the other. That's why it's so important for all those working with the cardiac child to learn to talk together—and make time for it. This is the only way there can be a unified approach to the solution of the child's problems.

Vocational planning for the cardiac should be an early consideration. If there is a probability or even a possibility that some vocations might not be appropriate because of a physical limitation, school personnel should begin guiding boys and girls in their educational planning and their vocational selection at a time when it can be truly helpful, and this means before the Junior or Senior years of high school. The vocational emphasis should be on the "positive"—the many interesting possibilities from which to choose —not on the "negative"—"you can't do this, you can't do that." Dr. Katharine Brownell has stated, "The Most effective counselling that can be given the young rheumatic is to persuade him to accept the maximum education of which he is capable, so that a wide range of jobs is open to him and so that in middle life he will not need retraining for something other than heavy manual labor."

Though we have discussed the home and the school, we have mentioned only indirectly the part that community agencies and groups outside of school can play in helping the cardiac child. There are many groups which have an interest in his welfare—hospitals, official agencies such as health and welfare departments, voluntary health agencies and sometimes civic clubs and parent groups. One such community group is the Heart Association, which, as you know has participated in the sponsorship of this program. The American Heart Association and its affiliates have supported, promoted, and participated in program activities which have resulted in bringing better medical services, improved education programs,

vocational guidance and other benefits to cardiac children. Their work along these lines is very significant and deserves our support —not only in terms of financial contributions—but equally important, in terms of active professional participation in planning community programs to meet whatever needs exist. We have already heard today of what one heart association accomplished in the way of "de-labeling" children who were not cardiacs and should not be treated as such. This is just one isolated example of a very worthwhile program.

Now, I hope it has been evident in everything that I have said that I am a firm believer in the teamwork approach. This, of course, is not a new concept to any of us. In fact, it has become almost trite. But it is, I'm afraid, a concept to which we give more lip service than active participation. And this brings me to my concluding point—probably the most important of all. Let's USE the whole team. The "lone wolf" approach is inefficient and ineffective. Let's think not only "What can I do for this cardiac child," but also "What can I, working with others, do for this cardiac child." And I'm sure that the difference between the accomplishments of these two approaches will be astounding. No other attack on the problem is worthy of our professional competence.

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AMA RE-ENDORSES WATER FLUORIDATION

The American Medical Association has reaffirmed its endorsement of water fluoridation. At its annual clinical meeting in Philadelphia last December 5, the AMA House of Delegates adopted a report summarizing a year-long study made by two AMA councils on the value and effects of fluoridation. The report calls water fluoridation "a safe and practical method of reducing the incidence of dental caries during childhood."

The AMA originally endorsed water fluoridation in 1951 but decided late in 1956 to examine all studies and statements made in relation to fluoridation since 1951.

Last December's report is essentially the same as the report adopted by the AMA in 1951. The 1951 report said that "the use of drinking water containing up to one part per million of fluoride is safe." Last December's report said no evidence had been presented since 1951 "to prove that continuous ingestion of water containing the equivalent of approximately one part per million of fluoride for long periods by large segments of the population is harmful to the general health."

HOW EFFECTIVE IS CLASSROOM INSTRUCTION IN SAFETY?

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Today, safety education is a definite, important part of the public school program at all grade levels and in all types of learning experiences; or, at least, it is supposed to be. However, one may well question the effectiveness of this instruction in safety, for accident rates are still rising. Even with driver education courses in many of our high schools, the proportion of teen-agers and young adults involved in highway accidents is still too large. Is this continuing high rate of accidents due to ineffective instruction, neglect on the part of the schools to give instruction, or to a combination of other factors beyond the control of the educator? This, of course, is a difficult question to answer, but educators should begin to make definite attempts to evaluate their programs in safety education.

One way of evaluating the effectiveness of classroom instruction in safety is by speculation. Speculation is an important process, for the ideas which emerge help us to design research. But too often we are satisfied with just speculation. We resort to complacency because research seems difficult, time-consuming. We argue that evaluative techniques are crude. Paper-and-pencil tests help us to assess knowledge, but do not serve to measure progress toward the ultimate objective of safety education—to bring about changes in individual *behavior* which insure safer living. We know that, unless an individual behaves in a manner which preserves his well-being and that of others, what he has amassed in the way of knowledge of safety is of little value. Knowing this, educators find themselves in a dilemma. To hold to our beliefs about the effectiveness of classroom instruction without valid, supporting data is unsound. To attempt research without valid tools for data collection is unsound. What is the answer—complacency? Indeed not. Educators should begin with an examination of their beliefs, design ways of testing beliefs, and refine their procedures as they continue to experiment with evaluation.

What are some of our current beliefs as to the effectiveness of safety education? How can we test these beliefs, thereby obtaining sufficient data for evaluation? Let's begin with the first question, recognizing that the answers are mainly speculative. Stated in broad terms, some of these values might be listed as follows:

1. *When safety instruction meets the real needs of individuals, effective learning takes place which changes perception and, ultimately, behavior.*—Meeting the real needs of individuals, or creating a real need for safety education, is the crucial problem in effective instruction. Quite often people see no need for instruction because they have the idea that accidents always happen to the other fellow. They are smug in their false sense of immunity to disaster. A skillful teacher, who has insight as to the factors which may be distorting perception, can sometimes provide situations which help such individuals see a need for safety practices. Fortunately, most individuals are concerned with personal safety and welfare. When texts, visual aids, reference materials, and methods are geared to the learner and when the learning situations provide for practical, daily experiences, the needs of most individuals can be met with some degree of effectiveness.

2. *The knowledge provided by safety education is essential for the recognition of situations that are hazardous.*—Ignorance is often the cause of accidents. This is particularly true of young children. Safety demands constant alertness to potential dangers. Alertness is partially dependent upon one's knowledge of the situations in which he finds himself. By learning, one increases his knowledge of his environment and, hence, becomes more sensitive to hazards. Without these changes in perception, an individual may unawaredly stumble into dangers or make himself vulnerable to accidents. Such would be the case of a youngster who perceives a broken power line as an object for use in his game of "cowboy and Indians." He is unaware of danger because he does not know about power lines.

3. *Knowledge and skills are essential for the development of safe practices in meeting emergency situations.*—Although individuals may be careful about getting themselves into hazardous situations, there are times when they may find themselves or others in potential danger. Knowledge of what to do and what not to do is of prime importance. First aid facts may save not only one's own life but also the lives of others. Knowing not to run when one is on fire, not to move a seriously injured person, and not to give stimulants to a victim of snake bite are only a few examples of the

importance of first aid knowledge. Along with knowledge, basic skills in handling one's body and in performing first aid practices are essential. Knowing how to fall, how to provide artificial respiration, and how to rescue a drowning person are invaluable skills for all individuals.

4. *Understanding the reasons for safety codes helps to develop wholesome attitudes and acceptance of the community's effort to provide for public safety.*—Classroom instruction which fosters understanding does not, of course, guarantee that all individuals will change their attitudes and behavior; but understanding "why" helps most of us to develop respect for safety codes. Laws which are not understood are generally perceived as unreasonable and, as a consequence, are not respected. In fact, they tend to create hostility and an urge to violate. Understanding, then, is a requisite for proper attitudes and acceptance of safety codes.

5. *Safety education often helps individuals gain a greater sense of security, responsibility, and personal worth.*—All individuals need to feel secure and to perceive themselves as respected and valued persons. Knowing how to adapt to situations and to handle emergencies enhances one's feeling of security. Being respected and valued by others for his adequacy and accomplishments in safety increases the respect which one has for himself. It is, indeed, a good feeling to know that you have saved yourself or someone else from injury or death.

Although one might enumerate many other values, let us look briefly at some of the limitations. This is necessary, for any attempt at evaluation must include "both sides of the picture." We might list some of these as follows:

1. *Unless the safety instruction has meaning to the individual, he does not change his behavior.*—Just giving instruction in safety does not guarantee that the individual will put his knowledge to use. He may be able to pass a knowledge test and yet violate every safety code in the book. If a person's perception of himself and his world is distorted, no amount of safety instruction will change his behavior. The problem is a deeper one than just handing out knowledge. Consequently, a perceptual approach promises more assurance of effective learning than instruction alone.[2] This means that the teacher must understand the individuals whom he is instructing. When contributing relations are successful in reducing hostilities and anxieties, the individual is able to perceive himself and the world more realistically. At this point, safety instruction

has real meaning for him. He is able to learn safety facts and to apply them in daily living. To illustrate, we might refer to the accident-prone individual. He usually knows the safety codes, can recite them backwards and forwards, but is not always able to apply them, especially when inner tensions mount.

There are, of course, other emotional blocks to learning. When safety instruction poses a threat to one's self-concept or symbolizes authority against which an individual is already rebellious, he is resistant to learning. The teen-ager who is trying desperately to play the role of "tough guy" and to show his independence will be resistant to any changes in behavior which seem to block his attainment of cherished goals.

For safety instruction to have meaning, it must also be appropriate to the mental ability of the learners. This is obvious in young children whose level of learning and reasoning abilities are limited; hence, the need for supervision. It is less obvious in older groups where the ranges of mental ability are wide. Teachers often overlook the fact that all students cannot learn the same things. The individual whose intelligence is "borderline" or "dull normal" cannot learn as readily nor apply what he has learned as effectively as an individual of normal intelligence.

2. *The effectiveness of safety instruction is reduced when the individual is unable to apply his knowledge in everyday living.*— In addition to what was mentioned under the above limitations, one can enumerate several other factors which prevent adequate transfer and utilization of knowledge.

Physical defects such as those pertaining to defective vision and hearing, brain damage, endocrine dysfunction, and epilepsy, are not always obvious to an individual or to those who supervise his care, yet they may account for more accidents than lack of knowledge of safety procedures.

Imbalance in body chemistry is not always recognized by the individual, but it does influence his perception. He behaves as he sees and feels, often discarding caution if he must. Imbalance is brought about by many factors, such as emotional stress, disease, drugs, alcohol, and deprivation of physical needs. For example, fatigue, possibly resulting from an imbalance of body chemistry, is often a cause of accidents, for one's alertness to hazards as well as his reaction time are sharply reduced.

The alcoholic, or habitual drinker, is unable to follow safety practices. He may know them and usually does. He also knows that he should not drink and drive, but he continues to drink and

then he thinks he can drive. The drinker needs psychological help, for he cannot profit from safety education alone. He is truly a hazard on our highways and the one most frequently involved in accidents.

Strong emotional disturbances adversely affect a person's ability to think clearly and to follow safety practices. The worried or anxious person becomes so involved with his personal problems that he is unable to give attention to safety. It is also known that under stress, learning sometimes breaks down. Each individual has his own tolerance level for adapting to stress. When stress cannot be tolerated, learned patterns break down and primitive responses take over. We see this in the behavior of a person who "loses his head"—one who goes to pieces in an emergency. Jamming on the brakes when the pavement is wet, releasing the steering wheel when a tire blows out, or running when bitten by a snake are just a few examples of inability to utilize knowledge under sudden threat or stress. A person who is easily disorganized—one who has a low level of tolerance for stress—can probably profit more from psychological or medical help than from continued emphasis on safety facts.

3. *The effectiveness of safety instruction is also reduced when social pressures become great.* This is particularly true among some teen-agers. Their need for prestige and conformity to the group is often greater than their need for physical safety, or so it seems when one observes them under social pressure. Some boys particularly need to prove their manliness by flaunting safety codes. Those in the crowd who do not follow suit are promptly labeled and rejected. Consequently, many go along even though they know the possible consequences. Many also become the innocent victims of social pressure. How to help teen-agers maintain personal integrity and social acceptance without always doing what the "crowd" does poses a real and crucial problem.

In summarizing our thinking—pro and con—about the effectiveness of classroom instruction in safety, we can arrive at an evaluation by speculation. Thus, it seems that classroom instruction in safety does provide knowledge and skills which are essential for changes in behavior that equip the individual for safer living. However, there is no assurance that these knowledges and skills will lead to safety practices. Unless safety instruction has meaning to the individual, his behavior is not changed. Unless he is able to utilize what he has learned, the efforts and time spent in instruc-

tion are lost. Although we may assume that many individuals are reached by effective instruction in safety, we must also recognize that some are not. These individuals need guidance in personal problems or medical care before they can profit from safety instruction. By combining classroom instruction with assistance in personal adjustment, educators should have a more effective approach to the whole problem of safety. We say "should have" because we are still in the realm of speculation. What we now need is more data pertaining to the effectiveness of instruction and of personal guidance. If what we are doing is not effective, then we need to redirect our efforts. If it is, then we need to double our efforts.

But getting valid data which support or refute our speculation poses a difficult problem—one which has been avoided too long. One of the major aspects of the problem is the dearth of valid and reliable measuring instruments and the dubious value of some of the other evaluative techniques. The status of our measuring instruments is not due to the neglect nor carelessness of specialists in the field of measurement but to the complexity of the human organism. Even though one may recognize that the various techniques are crude, it is better to attempt some type of data collection and interpretation than to ignore the problem altogether. The safeguard comes in recognizing the degree of validity which we can assign to the data; and at least, to have some data with which to work. Whether we like it or not, sound evaluation, not just speculation, is an integral part of teaching and cannot be separated from it. No teacher can teach effectively without studying the effects of his methods and without some understanding of each individual within his group. It is, therefore, his responsibility to select the most valid and reliable techniques available—those which will help him to collect the data which he needs for his particular purpose.

The most valid techniques are those which are compatible with the objectives of instruction or with some other purpose which the teacher has in mind. Since the ultimate objective of safety education is to bring about those *changes in behavior* which make for the maintenance and improvement of safety practices by the individual himself, the techniques which are the most appropriate are those which help us to assess behavior. To assess behavior, we must become sensitive and trained observers. We must be able to look for behaviorial clues which suggest either progress or lags in learning. We must also have some scheme for recording these for later interpretation.

Since we assume that acquisition of knowledge reflects an inner change in the behavior of an individual, a pre- and endtest on a particular body of facts gives us some insight into what has been learned. But we cannot stop here, for these facts *must be utilized* in daily living. Thus, the behavior of the individual which we can see gives us clues as to whether or not knowledge is really functioning. We must observe in daily situations; we must obtain data as to what the individual *does* to insure his safety and that of others. How he handles himself in an emergency, the number and kinds of accidents in which he is involved, the situations in which accidents occur, the factors which seem to contribute to the accidents are examples of the important kinds of data which we must obtain. All this implies that we must assess the behavior of *each* individual in the group in order to evaluate the effectiveness of instruction for the group as a whole.

Even though the group as a whole may reflect the desired behavior changes, there may be some individuals who do not. These need special study and help. To aid us in special study, we need other kinds of evaluative techniques. What we select, of course, depends upon what we have inferred to be the particular areas of difficulty. We may find that we need more specific data about the individual's health, intelligence, social acceptance, mental health, or his perceptions of self and the world. To illustrate, suppose a teacher has given specific instruction in the prevention of accidents from falls. A pre-and endtest shows that the group has progressed in learning the necessary facts. Observation and individual record keeping reveals that behavior has changed, except for Sammy. The question now becomes, "Why is Sammy continuing to be involved in accidents in spite of a good level of knowledge as to prevention of accidents from falls?" To find the answers necessitates a more careful study of Sammy; and, until the teacher gains some insight as to the causal factors, he cannot plan an intelligent course of action. As far as Sammy is concerned, the teacher's instruction will continue to be ineffective until this is done.

In evaluating classroom instruction, it is important for the teacher to identify clearly the *specific* objectives for a particular unit of work. Without knowing objectives, the teacher is unable to select the most appropriate evaluative techniques. These objectives should be stated in behaviorial terms. What specific behaviors reflect the attainment of objectives? When this is done, the teacher is ready to select and to utilize evaluative techniques. This is so because the specific techniques will vary according to purposes

and situations. A doctor, for example, would not give a vision test to evaluate speed of recovery from an appendectomy. He has a specific purpose and he uses techniques which serve his purpose. His observations have direction. An intelligent teacher would not use a skill test in swimming as an instrument for evaluating progress in driver training. But if he doesn't know whether he is interested in evaluating swimming or driving, or in evaluating knowledge or performance in either of these areas, how can he select appropriate techniques?

Evaluation, then, must be in terms of specific objectives; and, since we are primarily interested in behavior changes, objectives expressed in terms of behavior help us to become intelligent observers and to collect appropriate data.

As an illustration of some of the things that might be done to evaluate classroom instruction, let us look at the procedures used by Mr. W. From his observations, Mr. W. felt that his sixth grade needed a unit on "Prevention of Accidents on the Playground." His main objective was "to improve safety practices on the playground, thereby reducing the number of accidents." After thinking about this objective, Mr. W. described the kinds of behavior which he felt would reflect individual improvement in safety practices on the playground. A few of these are listed as follows:

1. refrains from running into the street
2. prevents others from going into the street
3. does not play near the swings
4. reminds others not to play near the swings
5. does not play with dangerous objects, such as hard balls, sharp sticks, and knives
6. reminds others to refrain from playing with dangerous objects
7. does not play "forbidden games," such as tackle football and slide tag
8. assumes responsibility for reminding others not to play these games.

Mr. W. then devised a Check List and Rating Scale for use with each individual. His purpose was to rate observed behavior before and after instruction. He made plans to observe his students before school, during the scheduled play period, at lunch time, and for an hour after school.

In addition to his own observations, he also decided to ask his students for a self report on their own behavior at the end of the instructional period. He formulated a system of record keeping so that he would know the number and kind of accidents on the playground and who was involved. Knowing that three of his students had already had more accidents than the others, he made

definite plans to study their problems so that he could adapt instruction to fit their unique needs.

By using these few techniques, Mr. W. felt that he could collect data that would be helpful in evaluation as well as in the formulation of possible answers to a multitude of other questions. Because Mr. W. recognized that his techniques were somewhat crude and subjective, he did not make the mistake of using his data as conclusive proof. He did, however, have the satisfaction of knowing that he had moved beyond the stage of speculation and that his continued efforts would provide valuable data.

There are, of course, many other ways to collect data for evaluation. An ingenious teacher can readily adapt these to his particular objectives. For example, in the higher grades attitude scales may be of value in some units of work to supplement observations of behavior. There are many forms which may be used, some having more value than others. The possibilities of measuring attitudes are carefully discussed by Edwards.[1]

Some units of work in safety lend themselves to "situational tests" and spontaneous dramatizations. The former, for example, could be used before and after instruction to check improvement in recognition of hazards in a particular situation, or segment of the environment. Spontaneous dramatizations can be effectively used before and after instruction in First Aid. Individuals can be assigned roles and be asked to respond to certain fictional situations, such as an automobile accident, a fire, or an accident on the athletic field. The less time the actors have to think about what they would do, the greater the possibility of inferring similar behavior in an emergency situation. Dramatizations, of course, lack the emotional element which is present in a real emergency; but they do afford opportunities to observe knowledge in action.

One of the most valuable ways of evaluating the effectiveness of instruction is by faculty study and research. An all-out effort by a faculty to study the accident problems among the school population would make a valuable contribution to safety education.

Although the problem of evaluation is a difficult one, something can be done; and something is better than nothing. A teacher *should* be able to state specifically the objectives of his instruction. If he can't, he really doesn't know "where he is going." He *should* be able to describe the behavior that reflects a mastery of the knowledge he imparts. If he can't, he is not very well acquainted with his subject. He *should* be able to see whether or not the desired behavior occurs. If he is not sensitive to behavior, he may

need more training before he undertakes the task of teaching. These three things he should be able to do. Until he can do them, he will have to depend on speculation rather than evidence for evaluation of his instruction.

How effective is classroom instruction in safety? Perhaps, we shouldn't even attempt a general speculation, for the degree of effectiveness varies greatly from teacher to teacher and school to school. Until we engage in more experimentation and research, we can only speculate about the effectiveness of classroom instruction in safety. We hope and believe that it has great value. Let's prove that it does.

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REVIEW

Fit to Teach. Yearbook of the AAHPER. Edited by Fred V. Hein, Ph.D. 247 pp. Illus. $3.50.

Prepared under the direction of a specially appointed "Yearbook Commission" and edited by Fred V. Hein, *Fit to Teach* brings together in a single publication a vast amount of information concerning teachers and teacher health. It explores today's major health problems and the resources available to solve these in terms of the teacher's functions, his personal health, and that of his pupils.

This publication should have wide circulation. Every physician and nurse associated with a school health program should be familiar with its contents. It will also be invaluable to school administrators and others concerned with personnel policies. Those responsible for the pre-service or in-service education of teachers will find the contents stimulating and informative.

Good typography, excellent organization and selected references at the end of each chapter, help to make this a noteworthy publication.

The more than seventy people who assisted in the preparation of this book as members of the Yearbook Commission, contributors, or consultants, should be proud to have had a part in the development of this unique publication on the health of the teacher.

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SHOULD SCHOOL NURSES WEAR UNIFORMS?

Prepared by

The California School Nurses Organization

The question of whether or not it is desirable for school nurses, employed by boards of education, to wear uniforms, or specifically "white uniforms," has arisen from time to time.

An investigation of the function of the school nurse in the school will reveal the fact that she works as an integral part of the school staff, attends teachers' meetings, visits classrooms, makes home visits, confers with pupils, administrators, teachers, parents, physicians, dentists and others, and serves as a resource person on school health. Her function is directly related to the educative process.

We will all agree that a child learns best when he is well physically and mentally, when he sees and hears well, and is free of remediable physical handicaps. The school nurse concerns herself with certain screening procedures, with the education of children and their parents regarding the importance of the maintenance of optimum health and the correction of defects which may exist.

The school nurse has many other functions, none of which are involved in the actual treatment of illness. It is true that she may give emergency care in the case of accident or illness, as do teachers, but treatment is held to be the responsibility of parents and of the community. The school is an institution responsible for the educative process and the school nurse functions within this framework.

White nursing uniforms are associated with the treatment of people who are ill. Children and even some adults, unfortunately, often have a fear reaction associated with medical and nursing personnel in white uniforms. The nurse who wears a white uniform may automatically be categorized as a person concerned with illness, rather than with health.

The functions of the school nurse, the philosophy of school nursing, and best practice among school nurses seem to indicate not only that uniforms, particularly white uniforms, are not necessary, but that they are undesirable. The nurse is one of the staff members of the school. There seems to be no reason why she should not dress as other members of the staff dress.

—Submitted by Lydia Smiley, P.H.N., La Mesa, Calif.

ABSTRACTS FROM HEART RESEARCH NEWSLETTER

Vol. 2, No. 4—Published by American Heart Association

Gains in Ten Years of Heart Research

Outstanding have been the dramatic achievements of surgeons in repairing previously hopeless heart defects. New drugs have appeared to help those with high blood pressure. Improved drugs and die therapy have helped heart failure patients. Rheumatic fever seemed to be yielding to prevention. Anti-clotting drugs have been shown to reduce the death rate after the first heart attack and long-term anticoagulant therapy has been extensively studied.

The application of electronics and the use of radioactive tracers have given investigators important new tools and provided physicians with improved methods for diagnosis. The catheter, a long thin tube pushed up through the veins into the heart chambers, has become widely used as a method for diagnosing heart and circulatory malfunctions. The value of regular exercise, the need to keep down weight, and sensible diet precautions have been affirmed.

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ABSTRACTS FROM THE AMERICAN HEART

Vol. VIII, No. 1, Publ. by the American Heart Ass'n and Affiliates

10th Heart Appeal

During February — Heart Month — the fight against cardiovascular disease will be spotlighted throughout the United States as the AHA and its affiliates conduct the tenth Heart Fund appeal. With a record-breaking total of $20,563,929 reached in 1957, an even greater effort is planned to honor the first decade of the AHA, reorganized as a national voluntary health agency in 1948.

This was pointed up in a pre-campaign statement by Charles Perry McCormick, newly appointed Heart Fund Campaign Chairman.

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ERRATUM

E. E. LeMasters: MODERN COURTSHIP AND MARRIAGE. Published June 25, 1957; price $5.50. Macmillan Co., 60 Fifth Avenue, New York, College Department. See Review in January issue.